**Maryland State Standards Alignment: 5th Grade**

The tables below reflect 5th grade standards that are best aligned to the activities included in the “Rocketry” unit. Other standards may be included if taught by multiple teachers or a single teacher classroom and as the use of technology and the presentation of ideas and data are expanded.

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| **Reading Standards** | **Included in Selected Activities** |
| **1.D3.** Understand, acquire, and use new vocabulary |  |
| **1.E4.** Use strategies to demonstrate understanding of the text (after reading) |  |
| **2.2.** Identify and use text features to facilitate understanding of [informational texts](javascript:openPopupWH('/share/vsc/glossary/reading/informational_text.html',200,200)) |  |
| **2.4.** Determine and [analyze](javascript:openPopupWH('/share/vsc/glossary/reading/analyze.html',200,200)) important ideas and messages in [informational texts](javascript:openPopupWH('/share/vsc/glossary/reading/informational_text.html',200,200)) |  |
| **4.A1.** Compose texts using the prewriting and drafting strategies of effective writers and speakers |  |
| **4.A2.** Compose oral, written, and visual presentations that express personal ideas, inform, and persuade |  |
| **6.A1.** Demonstrate active listening strategies |  |
| **6.A2.** Comprehend and [analyze](javascript:openPopupWH('/share/vsc/glossary/reading/analyze.html',200,200)) what is heard |  |
| **7.A2.** Make oral presentations |  |

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| **Mathematics Standards** | **Included in Selected Activities** |
| **2.A1.** Analyze the properties of plane geometric figures |  |
| **2.A2.** Analyze geometric relationships |  |
| **2.B2.** Analyze the relationship between plane geometric figures and faces of solid geometric figures |  |
| **2.C1.** Represent plane geometric figures |  |
| **2.D1a.** Analyze similar figures to Identify or describe geometric figures as similar |  |
| **3.A1.** Read customary and metric measurement units |  |
| **3.B1.** Measure in customary and metric units |  |
| **3.B2.** Measure angles |  |
| **3.C1.** Estimate and apply measurement formulas |  |
| **4.A1.** Collect, organize, and display data |  |
| **4.B1.** Analyze data |  |
| **6.C1.** Analyze number relations and compute |  |
| **7.A1.** Apply a variety of concepts, processes, and skills to solve problems |  |
| **7.D1.** Relate or apply mathematics within the discipline, to other disciplines, and to life |  |

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| **Science Standards** | **Included in Selected Activities** |
| **1.A.** Constructing Knowledge |  |
| **1.B.** Applying Evidence and Reasoning |  |
| **1.C.** Communicating Scientific Information |  |
| **1.D.** Design Constraints |  |
| **1.D.** Designed Systems |  |
| **1.D.** Making Models |  |
| **5.A1.** Describe the [motion](javascript:openPopupWH('/share/vsc/glossary/science/motion.html',200,200)) of objects using distance traveled, time, direction, and [speed](javascript:openPopupWH('/share/vsc/glossary/science/speed.html',200,200)). |  |
| **5.A2.** Explain that the changes in the [motion](javascript:openPopupWH('/share/vsc/glossary/science/motion.html',200,200)) of objects are determined by the [mass](javascript:openPopupWH('/share/vsc/glossary/science/mass.html',200,200)) of an object and the amount (size) of the [force](javascript:openPopupWH('/share/vsc/glossary/science/force.html',200,200)) applied to it. |  |
| **5.A4.** Cite evidence that [energy](javascript:openPopupWH('/share/vsc/glossary/science/energy.html',200,200)) in various forms exists in mechanical [systems](javascript:openPopupWH('/share/vsc/glossary/science/system.html',200,200)). |  |

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| **Technology Literacy Standards** | **Included in Selected Activities** |
| **2.A1.** Explain how technology affects the individual and society |  |
| **3.A1** Select and use technology tools to enhance learning |  |
| **3.B1** Select and use technology tools to encourage collaboration |  |
| **3.C1** Select and use technology tools to encourage productivity |  |
| **4.B1** Explore and use technology in an instructional setting to express ideas |  |
| **6.0 – Technology for Problem-Solving and Decision-Making:** Demonstrate ability to use technology and develop strategies to solve problems and make informed decisions |  |

**Social Studies** in Maryland’s 5th grade classes are focused primarily on Colonial America and the establishment of the foundations on which our country has been founded. There are number social studies themes associated with history and geography related to this project that are appropriate for the 5th grade and may be a part of this curriculum in other states.